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KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT

CLASS V UNDERGROUND INJECTION CONTROL (UIC) HEAT PUMP & AIR CONDITIONING RETURN FLOW WELL REQUIREMENTS

Procedure #: UICV-3
(8/06)

I. INTRODUCTION

A Heat Pump or Air Conditioning Return Flow well receiving groundwater after use for either heating or cooling purposes is a Class V UIC well regulated under KDHE's UIC Program. The UIC regulations are found in Article 46-UIC Regulations. Heat pump wells that are "closed loop" systems are not considered Class V wells under the UIC program.

This document addresses the minimum requirements for Heat Pump and Air Conditioning return flow wells.

II. REQUIREMENTS

1. The injection water cannot contain any chemical additives such as corrosion inhibitors, anti-freeze, anti-scalents, etc.

2. The heat pump system or air conditioning system must be designed to prevent contact of the water with potential contaminants that could become entrained in the injection water.

3. The water must be returned to the same aquifer as the source of the groundwater used in the heat pump or air conditioning system. A licensed water well contractor should be contacted for assistance if this information is not known.

4. The injection well must be installed by a KDHE licensed water well contractor.

5. The injection well should be located a sufficient distance from the supply well to maintain the proper geothermal gradient necessary for continued, efficient use of the heat pump or air conditioning system.

6. The well **cannot endanger** the public health or environment.

III. INVENTORING CLASS V HEAT PUMP OR AIR CONDITIONING RETURN FLOW WELLS

If you have a Heat Pump or Air Conditioning Return Flow well(s), you must submit an inventory form to KDHE's UIC Program. The inventory form for these wells can be found on KDHE's Geology Section website at www.kdheks.gov/geo under Class V forms and is entitled "Inventory Report For Class V Injection Well(s) Receiving Heat Pump-Air Conditioning Return Water"